

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Spectral Response, Inc.

Georgia Manufacturing Extension Partnership

Spectral Response, Inc. Implements Lean, Improves Bottom Line

Client Profile:

Spectral Response, Inc., founded in 1987, is an electronic contract manufacturer specializing in circuit card manufacturing and testing services. The company also provides supply-chain logistics, operational and logistical support, procurement, engineering expertise, and product refinement services. Spectral Response employs 31 people at its facility in Duluth, Georgia.

Situation:

Spectral Response had to develop innovative ways of thinking to survive and thrive. Spectral Response's President Kevin Melendy said, "The factory floor was being driven by the how orders were loaded. If a customer called, we had to figure out a way to get it done. But as our business grew and the margin pressures were layered on top of that, we had to take an order from a customer and make sure our supply chain commitments matched up to our manufacturing processes." To improve the company's manufacturing process, Melendy turned to Georgia Tech's Enterprise Innovation Institute (EII), a NIST MEP network affiliate, for assistance.

Solution:

EII Lean specialists Kelley Hundt and Jennifer Trapp-Lingenfelter initially visited Spectral Response to help streamline the way the company initiated product orders. After developing a Value Stream Map (VSM), a diagram used to analyze the flow of materials and information required to bring a product or service to a consumer, they suggested the project focus on the entire manufacturing floor plan. Hundt and Trapp-Lingenfelter both thought the company's manufacturing process would benefit from a cellular design. At the time, the company was arranged in functional departments that caused excess work-in-process, long lead times and lack of flexibility. Cellular manufacturing, sometimes referred to as cell production, arranges factory floor labor into semi-autonomous and multi-skilled teams that manufacture complete products. These more flexible cells are able to manage processes, defects, scheduling, equipment maintenance and other manufacturing issues more efficiently. After training the entire Spectral Response workforce on Lean manufacturing principles, a cross-functional team of eight employees examined the 'before' process, brainstormed ideas, and used Lean tools to highlight areas of improvement. As a result of EII's assistance, inventory was cut by more than one-third and products were ready to be shipped within 48 hours.

Results:

- * Reduced work in process by 50 percent.
- * Reduced lead time by 50 percent
- * Reduced overtime from 15 percent to 5 percent..
- * Reduced electricity by an estimated 20 percent.

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* Increased floor space by 40 percent.

Testimonial:

"It's easy to quit on this because it's difficult, but ultimately you come out on the other side with a company that's more efficient and better run than when you first started."

David Shockley, VP of Operations